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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,341	09/04/2001	Tsuneo Sato	0649-0799P	9771

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BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER
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GOOD JOHNSON, MOTILEWA

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/944,341

Applicant(s)

SATO ET AL.

Examiner

Motilewa A. Good-Johnson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This office action is responsive to the following communications: Application, filed 09/04/2001; Preliminary Amendment A, filed 09/04/2001; Amendment B, filed 01/26/2004; Amendment C, filed 03/01/2004.
2. Claims 9-16 are pending in this application. Claims 1-8 have been canceled. Claims 9, 15 and 16 are independent claims.
3. The present title of this application is "Color Character Description Apparatus, Color Management Apparatus, Image Conversion Apparatus and Color Correction Method" (as originally filed)

***Response to Amendment***

4. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henderson, U.S. Patent Number 6,011,595, "Method for Segmenting a Digital Image into a Foreground Region and Key Color Region", class 348/590, 01/04/2000, filed

09/19/1997 in view of Edge et al., U.S. Patent Number 6,362,808 B1, "Arrangement for Mapping Color Between Imaging Systems and Method Therefor", class 345/601, 03/26/2002, filed 08/12/1997.

Regarding claim 9, Henderson discloses a color management apparatus for converting supplied image data by using a lookup table of color characteristic data into output image data, said color management apparatus comprising: a lookup table which is composed of characteristic points which are points indicating the relationship between supplied image data and output image data which are determined to be impossible to be interpolated when a process for converting image data is performed (col. 6, lines 1-28, look-up table stores indicators of color values inside a key color volume and outside the key color volume, which Examiner interprets as color impossible to be interpolated)

However it is noted that Henderson fails to disclose and image data converting means for converting supplied image data by using said lookup table composed of the characteristic points into output image data.

Edge discloses image data converting means for converting supplied image data by using said lookup table composed of the characteristic points into output image data. (col. 5, lines 26-32)

It would have been obvious to one of ordinary skill in the art at the time of the invention to include data impossible to be interpolated in a look up table, to reproduce images representative of color values outside a key region of a color management area that are impossible to be interpolated.

Regarding claim 10, Henderson discloses table developing means for developing said lookup table into multidimensional lookup table; wherein said image data converting means uses the multidimensional lookup table developed by said table development means . . . (col. 6, lines 41-65)

Regarding claim 11, Henderson discloses table development means develops said lookup table into said multidimensional lookup table in such a manner that all of characteristic points of said lookup table composed of the characteristic points are contained. (figure 6, element 60)

Regarding claim 12, Henderson discloses table development means develops said lookup table into the multidimensional lookup table such that data corresponding to grid points of said multidimensional lookup table is composed of output data of said lookup table and data of information of adjacent grid points for interpolating a portion between grid points. (figure 4)

Regarding claim 13, Henderson discloses multidimensional lookup table is a compressed . . . table formed by compressing said multidimensional lookup table; restoring means is provided which restore said compressed multidimensional lookup table into said multidimensional lookup table; said image data converting means causes said restoring means to restore said compressed multidimensional lookup table and uses obtained . . . table to convert supplied image data into output image data. (col. 6, lines 16-19)

Regarding claim 14, Henderson discloses table recording means for recording said multidimensional lookup table . . . in a memory; and updating means for operating

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said table development means and said table recording means . . . , image data converting means uses said . . . table recorded in said memory to convert supplied image data into output image data. (figure 3, element 34, address multi dimensional look up table with pixel color values, which Examiner interprets as table recording)

Regarding claim 15, it is rejected based upon similar rational as claim 9. Further, Edge discloses a color management system, col. 4, lines 1-7 and further discloses a lookup table to enable interpolation of destination coordinates form source coordinates, col. 7, lines 35-57, and storing and constructing the look-up table and using interpolation to convert source coordinates to destination coordinates, col. 7, lines 58-67.

Regarding claim 16, it is rejected based upon similar rational as above claim 9. Further, Edge discloses generating a look-up table and a device link generator including a device link table builder, col. 7, lines 27-57, a table builder which generates the look-up table by generating a series of source device coordinates as input value entries, col. 7, lines 50-57 and transformation techniques supplemented by interpolation between entries in a multidimensional lookup table, col. 1, lines 48-50.

### ***Response to Arguments***

6. Applicant's arguments, see After Final response, filed 08/05/2004, with respect to the rejection(s) of claim(s) 9-16 under 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of 103 Henderson in view of Edge.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Motilewa A. Good-Johnson whose telephone number is (703) 305-3939. The examiner can normally be reached on Monday - Friday 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Motilewa A. Good-Johnson  
Examiner  
Art Unit 2672

mgj



MICHAEL RAZAVI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600